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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,774	10/15/2003	Shun Kurata	4041J-000767	6328

27572 7590 07/22/2004

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EXAMINER

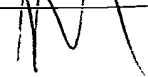
ALI, MOHAMMAD M

ART UNIT PAPER NUMBER

3744

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/685,774	Applicant(s) KURATA ET AL. 	
	Examiner Mohammad M Ali	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-7 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/15/03</u> . | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Takano et al. (JP2001130245). Takano et al, disclose an air conditioner for a vehicle comprising a front air conditioning unit 3 and a rear air conditioning unit 4 for air conditioning front and rear side of a passenger compartment of a vehicle; a compressor 10 for compressing refrigerant; a condenser 14 for condensing gas refrigerant discharged from the compressor 10 in a cooling mode; a front evaporator 18 disposed in the front air conditioning unit 3, for cooling air in the cooling mode and for heating air in a heating mode; a rear evaporator 33 disposed in the rear air conditioning unit 4 for cooling air in the cooling mode; a hot gas bypass passage H through which the gas refrigerant discharged from the compressor 10 flows into the front evaporator 18 while bypassing the condenser 14 in the heating mode; a decompression unit 16, disposed between the condenser 14 and the front evaporator 18, for decompressing refrigerant flowing from the condenser in the cooling mode; and a refrigerant pipe 20 to which a refrigerant outlet side of the decompression unit 16 and a refrigerant outlet side of the hot gas bypass passage H are joined, wherein the refrigerant pipe has a refrigerant outlet that is connected to a refrigerant inlet of the front evaporator 18, an accumulator /low-pressure gas-liquid separator 19 and a check valve 35 between rear evaporator 33

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and the accumulator 19 to prevent refrigerant backing from the accumulator towards evaporator 33. (see Fig. 2 and the translation of the detailed description).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takano et al., in view of Inoue (5,044,169). Takano et al., disclose the invention substantially as claimed as stated above. However, Takano et al., do not explicitly disclose a fixed throttle. Inoue explicitly teaches that a fixed throttle 6 can be used in between a condenser 2 and an evaporator 5 in a refrigeration circuit for the purpose of decompressing the refrigerant (see Fig. 2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the air conditioner of Takano et al., in view of Inoue such that a fixed throttle could be provided in order to decompress the refrigerant in a refrigeration circuit.

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Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takano et al., in view of Schnelle et al., (4,611,374). Takano et al., disclose the invention substantially as claimed as stated above. However, Takano et al., do not explicitly disclose a check valve with a reduced passage pipe wall. Schnelle et al., explicitly teach that a reduced pipe area 12 with a check valve 30 in a tube 10 for the purpose of having a unidirectional fluid flow in fluid circuit. (see Fig. 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the air conditioner of Takano et al., in view of Schnelle et al., such that a check valve with reduced pipe area could be provided in order to have a unidirectional fluid flow in a fluid circuit.

#### ***Allowable Subject Matter***


Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier from the examiner should be directed to Mohammad M. Ali, whose telephone number is (703) 308-5032. The examiner can be reached from 6:10am to 4:30pm from Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise Esquivel, can be reached at (703) 308-2597. The fax number for the organization where this application or proceeding is assigned is 703-308-7764 for regular communications and after-final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

  
Mohammad M. Ali

July 20, 2004